

Work Order ID 145455

Friday, May 06, 2016 8:13:47 AM

145455

Page 1

Item ID: D3290-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Frame

Stop ***NS2***

Start Date: 5/10/2016 Start Qty: 12.00

12

Cust Item ID:

Required Date: 5/16/2016 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals: Process Plan: MCS Date: MAY 06 2016 Tooling:

Date:

QC: Date: SPC (Y/N):

Date:

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3290

Rev C

100

0.00

100

Waterjet

FLOW WATER JET

Memo

4.56

FLOW CNC Waterjet

1-Cut as per Dwg D3290 (use prog. for D3290-1)

Dwg Rev: CProg Rev: C

2-Deburr if necessary

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.12

Quality Control

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

0.24

Quality Control

12 PR 05/29/2016DAS
19
9-0012 16-5-30DAS
38
9-00

(12)

MAY 30 2016.
P.T.O.

DQA:

Date: 16-06-23



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: 16-06-15

Work Order update only ☐

Work Order: 145455		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. D3290-1		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☒	Engineering ☐		
NCR No. 16-5839		Scrap ☒		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
Suspected Unapproved ☐				Large Fab ☐	Composite ☐	Supplier ☐			
Date: 16-05-30	Step #: 102	QTY Effective: 1				MRB (QSI042) Approval			
Description Work Order Deviation		Disposition				DAS 9 9-89 16-06-03			
1 hole positioned wrong sheets moved		Scrap / destroy no replace				Completed By: [Signature]			
RC Training						Lead hand / Supervisor Approval Verification DAS 38 9-89 MAY 30 2016			
						QC/QA Coordinator Approval DAS 38 9-89 MAY 30 2016			
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☒	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☒	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☒				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER: ☐							

Work Order ID 145455

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145455

Page 2

Item ID: D3290-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Frame
Start Date: 5/10/2016 Start Qty: 12.00 ***12*** Cust Item ID:
Required Date: 5/16/2016 Req'd Qty: 12.00 ***12*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 1.08							11 ϕ 16-06-02
135 *135* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00 0.00							11 ϕ 16-06-8 34 38
140 *140* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum M 134631 Memo START TIME: 9:30 OVEN TEMPERATURE: 320° FINISH TIME: 10:00	0.00 0.36							11 ϕ 16-06-8 34 38

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause			FAULT CATEGORY							
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
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Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process	☐ OTHER : _____							
Misidentified ☐	☐	Past Due								

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Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC3- Inspect Part Finish	0.00							DAS 38 9-89
150						(12)			JUN 08 2016
QC	Memo	0.12							
Quality Control									
180	Identify as per dwg & Stock Location: <u>SM32</u>	0.00							
180						12			DAS 6 9-89
Packaging	Memo	0.12							JUN 09 2016
Packaging									
190	QC21- Final Inspection - Work Order Release	0.00							
190									16/6/9 JF
QC	Memo	1.20							
Quality Control									

MCS JUN 09 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
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Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
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LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER :							
Misidentified ☐	☐ Past Due								

Picklist Print

Friday, May 06, 2016 8:13:50 AM

Page 1

Work Order ID: 145455

145455

Parent Item: D3290-1

D3290-1

Parent Item Name: Frame

Start Date: 5/10/2016

Required Date: 5/16/2016

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP REV:A 12.06.13 NEW ISSUE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.063		Purchased	No			100	sf	528.1830	3.75	47.36842			
M6061T6S 063									**			VR 05/29/2016	
6061-T6 .063 Sheet													

Location	Loc Qty	Loc Code
MAT021	192.183	
M132358	44.954	
M133511	55.9	
M134377	91.329	
TPI	336	
M134496	192	
M134604	144	
M134830		
		50

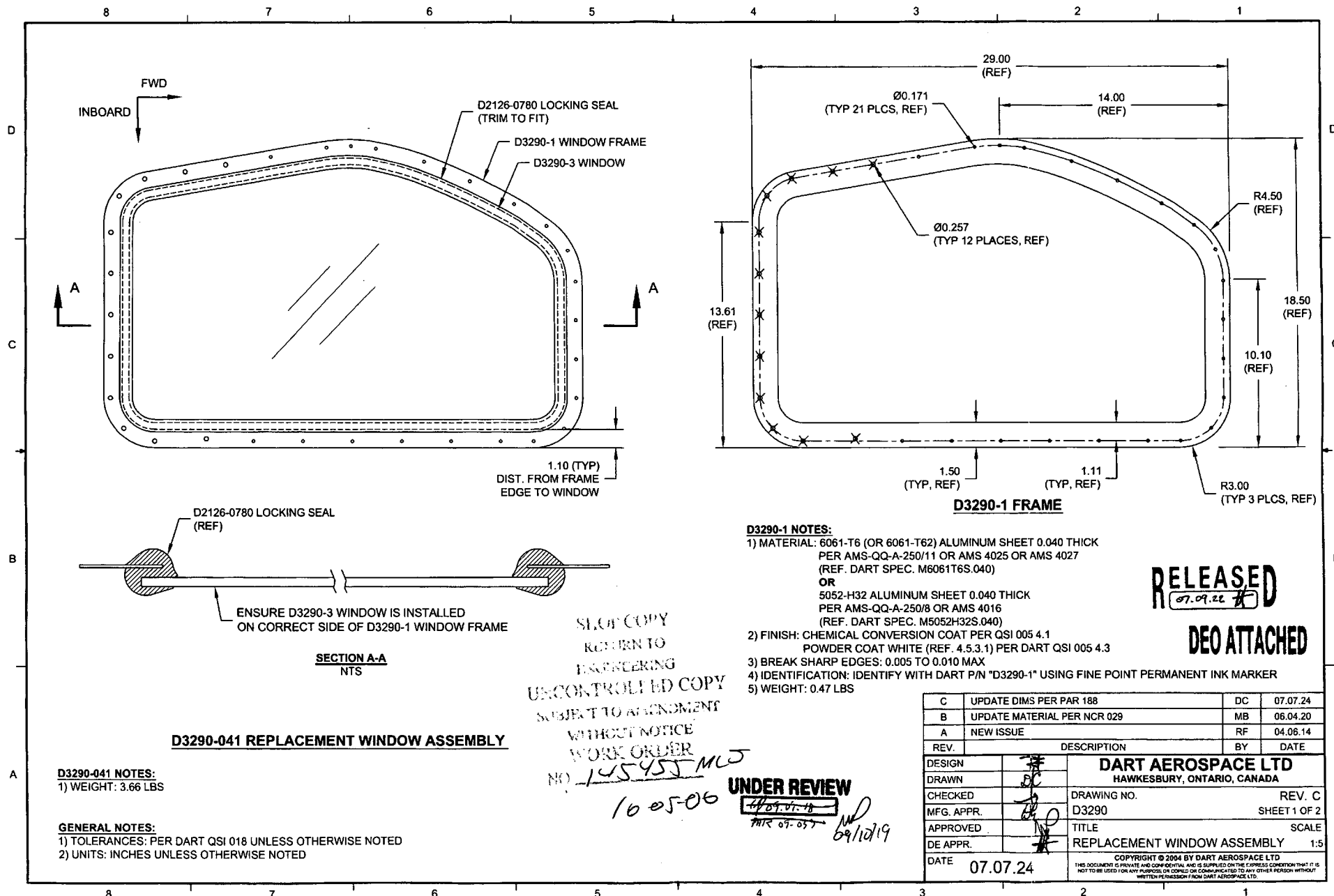
DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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D3290-1 NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET 0.040 THICK
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027
(REF. DART SPEC. M6061T6S.040)
OR
5052-H32 ALUMINUM SHEET 0.040 THICK
PER AMS-QQ-A-250/8 OR AMS 4016
(REF. DART SPEC. M5052H32S.040)
- 2) FINISH: CHEMICAL CONVERSION COAT PER QSI 005 4.1
POWDER COAT WHITE (REF. 4.5.3.1) PER DART QSI 005 4.3
- 3) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 4) IDENTIFICATION: IDENTIFY WITH DART P/N "D3290-1" USING FINE POINT PERMANENT INK MARKER
- 5) WEIGHT: 0.47 LBS

RELEASED
07.07.24
DEO ATTACHED

D3290-041 REPLACEMENT WINDOW ASSEMBLY

D3290-041 NOTES:
1) WEIGHT: 3.66 LBS

GENERAL NOTES:
1) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
2) UNITS: INCHES UNLESS OTHERWISE NOTED

STOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 145451 MLJ
1605-06

UNDER REVIEW

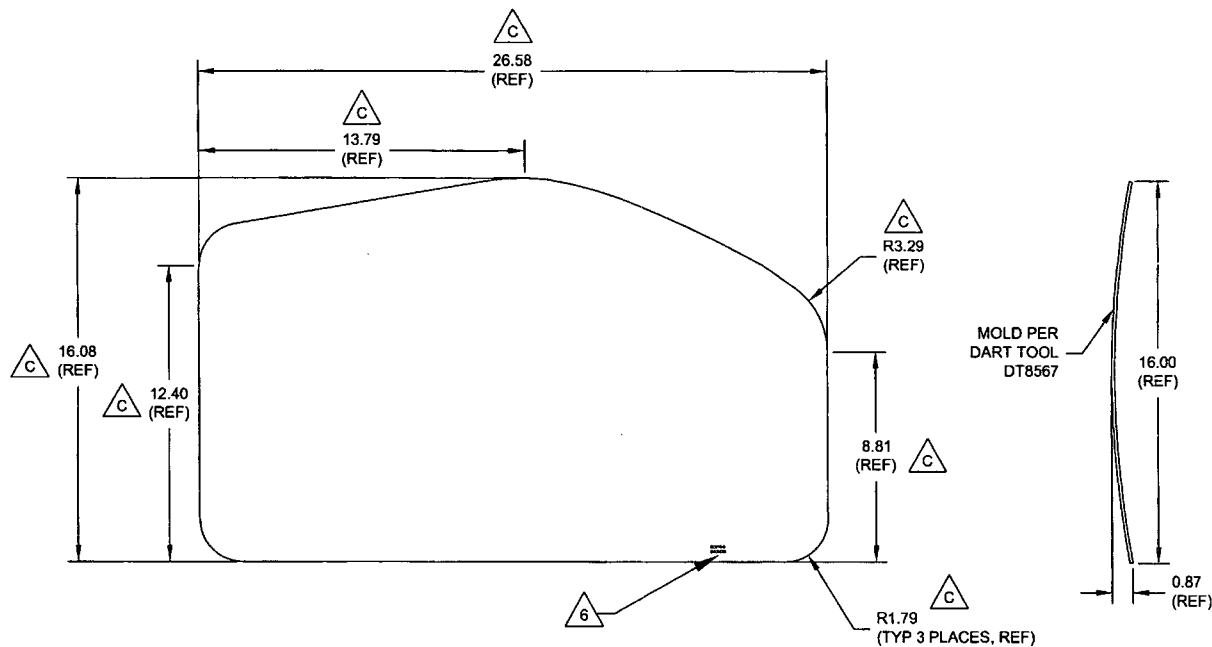
4409.01.18
MTC 07.05.19

C	UPDATE DIMS PER PAR 188	DC	07.07.24
B	UPDATE MATERIAL PER NCR 029	MB	06.04.20
A	NEW ISSUE	RF	04.06.14
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	07.07.24		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. REV. C
D3290 SHEET 1 OF 2
TITLE SCALE
REPLACEMENT WINDOW ASSEMBLY 1:5

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D3290-3 WINDOW

D3290-3 NOTES:

- 1) MATERIAL: POLYCAST II CLEAR ACRYLIC SHEET PER MIL-P-5425
OR PLEXIGLAS G CLEAR CAST ACRYLIC SHEET PER
LP-391 TYPE 1 GRADE C, 0.125 THICK
(REF. DART SPEC. M-ACRYLIC-S.125)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) REMOVE SHARP EDGES
- 6) IDENTIFICATION: ENGRAVE P/N "D3290-3" AND B/N ON LOWER EDGE
USE 0.125" HIGH LETTERS TO MAXIMUM DEPTH OF 0.005"
- 7) WEIGHT: 1.87 +/- 0.42 LBS
- 8) MOLD PER DART TOOL DT8567

UNDER REVIEW

DEO ATTACHED
RELEASED
07.09.22

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3290	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		REPLACEMENT WINDOW ASSEMBLY 1:5	
DATE	07.07.24	COPYRIGHT © 2004 BY DART AEROSPACE LTD	
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DRAWING NO. D3290	TITLE REPLACEMENT WINDOW ASSEMBLY	REV. C	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3290-C-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>GP</i>	CHECKED <i>h</i>	MFG. APPR. <i>E</i>	APPROVED <i>MP</i>		DE APPR. <i>MP</i>		
DATE 09.09.18	DATE 09.09.18	DATE 09.09.18	DATE 09/09/21		DATE 09/09/21		

PURPOSE:

CHANGE MATERIAL THICKNESS OF D3290-1 FRAME TO 0.063 FROM 0.040. REF PAR 09-033.

CHANGE:

MATERIAL CALL-OUT OF D3290-1 FRAME ON SHEET 1 IS AMENDED AS FOLLOWS:

D3290-1 NOTES

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET ~~0.040 THICK~~ 0.063 THICK (REPLACE)
 PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027
~~(REF. DART SPEC. M6061T6S.040)~~ REF. DART SPEC. M6061T6S.063 (REPLACE)
 OR
 5052-H32 ALUMINUM SHEET ~~0.040 THICK~~ 0.063 THICK (REPLACE)
 PER AMS-QQ-A-250/8 OR AMS 4016
~~(REF. DART SPEC. M5052H32S.040)~~ REF. DART SPEC. M5052H32S.063 (REPLACE)

RELEASED
 2009 -10- 09
MP

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